

UV Waterworks Field Installations

The UV Waterworks unit can treat water in a wide range of conditions. It works either on its own or as part of a more comprehensive treatment system where site conditions require a pump or prefilter. The following installations highlight this versatility.

BANGLADESH

In areas throughout Bangladesh where boreholes are heavily contaminated with arsenic, UV Waterworks systems provide an immediate alternative of switching to surface water as a source of clean drinking water. WHI installed its first Bangladesh demonstration unit in early 1999 with the support of the U.S. Department of Energy, which is making a gift of UV Waterworks equipment to the people of Bangladesh.



UV Waterworks disinfection device along with pre-filters, solar panels and a media filter.

The initial demonstration unit is a compact water station that includes four mechanical pre-filters to remove large particles, fine turbidity and cysts, a carbon filter to remove dissolved chemical contaminants, and a UV Waterworks unit to treat bacterial and viral contamination. The station provides water for approximately 2,000 people daily. Community systems including larger-scale roughing and sand filters for turbidity and cyst removal are planned for rural areas.

MEXICO

WHI installed its first integrated community water system near Acapulco in Zihuatenejo (Guerrero State), Mexico in 1998. The system can provide clean water for 2,000 people daily. It includes sand and roughing filters to remove turbidity and cysts, solar panels for its electrical requirements, and UV Waterworks for treatment of bacterial and viral contamination.

The system was set up at the request of the Minister of Health of Guerrero State and he, along with the Mexican Minister of Health and other officials, attended the dedication. WHI is working with other Mexican states to establish community water systems using the UV Waterworks technology.



UV Waterworks treatment system in Zihuatenejo, including solar panels, raw water storage tanks, roughing and slow sand filter tanks, the UVW unit, and a clean water storage tank.



UV Waterworks unit treating contaminated groundwater at a rural health clinic.

SOUTH AFRICA

A solar-powered UV Waterworks demonstration system was installed in February 1999 at the Greenock Clinic, a rural health clinic located near Dundee, KwaZulu-Natal. The clinic sees approximately 40 patients per day, most of them children complaining of diarrhea caused by contaminated water. The clinic's own groundwater supply has been contaminated by nearby pit latrines but requires no pre-filtration before UV treatment.

This installation is one of two planned installations funded by the U.S. Department of Energy through Lawrence Berkeley National Laboratory and the U.S.-South Africa Binational Commission. UV Waterworks units were donated by WaterHealth International. Future installation sites may include a primary school.



Water treated by the UV Waterworks unit may eventually supply the community's standpipe.



UV Waterworks being used in a Philippine community water center.



UV Waterworks unit as part of a system producing drinking water on-site in a water station. Dozens of such kiosks now operate in Metro Manila.

PHILIPPINES

As of May 1999, WHI's Philippines distributor has 37 "Aqua Sure" water stations operational in urban areas and 30 community water centers operational in rural areas. At these installations, people without access to reliable drinking water can buy water (which is treated by UV Waterworks plus pre-filters) for one-third the cost they are paying for bottled water. In early 1999, approximately 50,000 people were being served daily by UV Waterworks-treated water in the Philippines. In addition, the Rotary Club allotted funds in 1999 for nine Philippine public schools to be outfitted with community water centers.

Philippine water station and community water center owners are operating the business very successfully, demonstrating that the systems are an effective and financially viable method of providing water to poor communities at an affordable price.

For further information: <http://www.lbl.gov/>



ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
A U.S. DEPARTMENT OF ENERGY MULTI-PROGRAM SCIENTIFIC LABORATORY
OPERATED BY THE UNIVERSITY OF CALIFORNIA



<http://www.waterhealth.com>